NOTES

GEORGE HERBERT LOCKE.

OUR aim is to make the SCHOOL REVIEW indispensable to the superintendent of schools and to the principal and teachers in the high school. It is the medium of communication among the thousands of teachers in our secondary schools who are interested in the progress of education, and who wish to know what others are doing to help on this progress. We begin the campaign in September when the teacher in the high school returns to work and we are able to promise to our readers some very interesting articles. Dr. Fred. W. Atkinson, Superintendent of Public Instruction in the Philippine Islands, will write on "How Can the Public High School Reach Individuals?" Professor William Morris Davis, of Harvard University, will contribute a paper on "Physical Geography in the High School." There will be also an interesting and suggestive exposition of the results of the elective system in high-school work in what is known as the "Galesburg plan."

WE have received from the director of the business department of one of the largest high schools in this country a very appreciative letter concerning the editorial on commercial education in our April number. He says: "It should carry conviction to some of those educators who are still doubtful as to the advisability of commercial courses. I feel you are deceiving yourself, however, with reference to the ease with which commercial teachers are to be obtained. We have scoured New England and the middle states thoroughly for nearly two months in the attempt to find a good assistant for our commercial department, and we have not yet found the man. I know of no more promising field of high-school work at the present time, of no line of work where there are the same opportunities for rapid advancement, and yet the average college man would much rather teach Latin and Greek or mathematics at a very moderate salary. If you know where good teachers are to be found, I should be very glad to be put on track of them."

THE April number of the *Optimist*, the journal of the Kankakee, Ill., High School, publishes the constitution and laws of self-government adopted by the students. This will be of value to those who have an interest in the problem of self-government.

IT is difficult to find an arithmetic which will be simple enough to use in the first grade of our schools and yet have any educational value. Miss Wooster has tried to solve this problem in the *Wooster Arithmetic*, published by Crane & Co., of Topeka, Kan., at 25c. Much of the work is very suggestive, and the use of illustrations and color work would materially aid a teacher.

THE Macmillan Company has responded to the demand of those who are interested in inspiring works on education by publishing, in one volume and at a reduced price, the *Life of Edward Thring*, the Head Master of Uppingham School, by Dr. George R. Parkin. Such a scholarly and inspiring work ought to be read by every teacher, especially by those engaged in secondary school work. It contains over five hundred pages, and is published at $2.

MR. J. GEORGE HODGKINS, librarian of the education department for Ontario, has published a little illustrated brochure of twenty-six pages on *School Room Decoration in Ontario — Historical and Patriotic*, in which he brings to the attention of the people of Ontario the advisability of placing in the schools some illustrations of the men and the great deeds that have made the history of that country. Mr. Hodgkins says that it was a visit to the schools of this country that opened his eyes to the possibilities of this aspect of education.

THE *Kindergarten Review* for May contains a very interesting report of the recent meeting at Brooklyn of the International Kindergarten Union. This number ought to be in the hands of all those who are interested in the influence of this vitalizing force in our school system. Papers read at this meeting by Dr. Wm. T. Harris on "The Future of the Kindergarten," and by Miss Laura Fisher, of Boston, on "The Kindergarten in the School," are printed in full. The *Review* has reduced its subscription price one half, and is a remarkably good paper for the modest sum of $1 a year.

PHILADELPHIA is one of the few cities of our land which has a history, the city where the first American play was made, the first American coin struck, the city of Penn, Benjamin Franklin, and Stephen Girard. The history of this great city has been well written by Lillian Rhoades and is commended in an introduction by Mr. Edward Brooks, the superintendent of public schools. The publishers also have done their work well and this *Story of Philadelphia* will make excellent supplementary reading in American history. It is published by the American Book Company, has 384 pages, and the price is 85 cents.

WE are being called upon to furnish educators for our colonies, and certainly there have been some excellent selections. The latest deprives us of a very successful high-school principal and a contributor to this journal, for we hear that Principal Frederic W. Atkinson, of the Springfield, Mass., High School, has been appointed superintendent of instruction in the Philippines at a salary said to be in the neighborhood of $8000. From the New England children to the dusky Filipinos is a long call, but we feel confident of the wisdom of the appointing power, and we look for great success under the able organizing power and sound judgment of Dr. Atkinson.

MR. A. L. GOODRICH of the Free Academy, Utica, N. Y., has made every teacher of ancient history his debtor in publishing his *Topics on Greek and Roman History*. This is the true "source method" where the pupil is

informed of the best sources, where he does not grope blindly about and waste his time in unintelligent search. An interesting appendix is a list of historical fiction, tales, poetry, and drama relating to Greece and to Rome. The topics for special investigation with a discriminated bibliography, and the various lists of "terms to define" are other good features of this excellent book. It is published by The Macmillan Company, New York at 60 cents.

ANNIVERSARIES are pleasant occasions, especially when it is possible to frankly compliment those to whom increasing years has brought wisdom and deserved prosperity. The *Dial* of Chicago has just issued its Twentieth Anniversary Number, and in it has crowded a rich literary résumé of the progress of the past twenty years in literature, publishing, bookselling, libraries, periodicals, and education. The progress in education is well explained by Dr. B. A. Hinsdale, of the University of Michigan, and this article will prove of great value to all who are interested in education in this country. We are glad to find a paper of such prominence as the *Dial* devoting space to the rational discussion of our great educational problems, and we wish it increased and increasing prosperity.

THE French people are waking up to the necessity of sending out trained men to fill colonial positions, if the mother country is to retain her place among the great nations of the earth. In order to provide a supply of capable men for commercial work in their colonies, a colonial institute is to be opened in Marseilles. Students of the institute will be sent out at the expense of the state, and they will collect information, which will be furnished to commercial houses in the form of detailed reports. Instruction will be given in botany, zoölogy, natural history, colonial geography, and history. There will be a museum of plants, minerals, etc., so that the student may become acquainted with the actual products of the colonies; also a school of medicine to familiarize him with diseases peculiar to tropical countries. It is probable that arrangements will be made for teaching oriental languages. For grounds and buildings the city of Marseilles has given $193,000.

THE Tenth Summer meeting of the Cambridge University Extension School will be held at Cambridge, England, from August 2 to August 27. Among those who have promised to take part are: Professor A. V. Dicey, Graham Wallas, Rev. T. J. Lawrence, H. J. Boyd-Carpenter, Rev. A. Jessopp, Dr. Stubbs (Dean of Ely), J. Churton Collins, F. W. H. Meyers, Professor W. Knight (St. Andrews), Sir Joshua Fitch, Dr. C. W. Kimmins, M. E. Sadler, E. L. S. Horsburgh, J. A. R. Marriott, Rev. W. Hudson Shaw, and many others. The general subject of the lectures throughout the meeting will be "Life and Thought in England in the Nineteenth Century," and there will be six main subdivisions; (1) National Development; (2) Studies in Literature; (3) Scientific Progress; (4) Theology; (5) Education; (6) Biographical Studies. Outline programs can be had gratis from Mr. John Nolen, 111

South Fifteenth street, Philadelphia, Pa. Full programs, tickets, and all information from R. D. Roberts, M.A., Syndicate Buildings, Cambridge, England.

IT IS very appropriate to the season that the April issue of the Riverside Art Series should be about Jean François Millet, the artist of modern times who has done the most to make the world acquainted with French outdoor life, and who has got the closest to the earth and its humble workers. The book is arranged similarly to the Raphael, Rembrandt, and Michelangelo, and is written by Miss Estelle M. Hurll, the author of the other books of the same series. Among the sixteen pictures which have been chosen to illustrate best the artist's characteristics are the two pictures which have made Millet's name most famous in this country, The Angelus, and The Man with the Hoe; other pictures are the Shepherdess, The Sower, The Gleaners, The Church at Greville, and those two charming pictures of child life, The Knitting Lesson, and Feeding Her Birds.

The publishers, Messrs. Houghton, Mifflin & Co., of Boston, New York, and Chicago, will send the book, postpaid, on receipt of 30 cents for the paper-bound book, and 40 cents for the cloth-bound book.

A COMMITTEE of the senate, consisting of Messrs. Stewart, McMillan, Gallinger and Clark has been investigating the schools of the District of Columbia, and especially those of the city of Washington. The crucial question was "Whether a thorough instruction in spelling, reading, writing, grammar, arithmetic, and geography supersedes teaching of the higher branches of learning; and if not, why not." The evidence as printed in Report No. 711 of the senate is a very amusing piece of literature and shows very clearly how confused in their ideas are those people who condemn our rational methods of teaching.

The committee makes an interesting recommendation in regard to the reconstruction of the machinery of organization and administration. Their plan is that of a business corporation in which there will be five directors appointed by the President of the United States by and with the advice of the senate, one retiring each year. The compensation of the members of the board shall be twenty dollars per capita for personal attendance at each meeting, but shall not exceed $1000 per annum. The following is the argument of the senators: "It is almost a universal practice for large business establishments to pay the trustees or directors $5, $10, or $20 for personal attendance at each meeting of the board. Strange as it may seem, such slight compensation secures the attendance of the busiest and wealthiest men in the commercial centers of the country." The superintendent of schools is to receive $5000; the assistant superintendent $3000; the secretary $2500; the disbursing officer $2000; two clerks $1000 each; the messenger $500; in all, then, the expenditure on administration will be $20,000. This report is a very interesting bit of current educational history.

THE *London Journal of Education* for May prints in full the excellent presidential address of Sir Philip Magnus at the recent meeting of the Manual Training teachers of England. This is one of the best expositions of the spirit and progress of this great branch of education that we have read. In the course of his address he said that the first lesson was given in London, in January 1888, and the six schools then opened provided accommodation for 580 pupils. The number of pupils now receiving instruction under the School Board of London exceeds 41,000, whilst bench accommodation is found for 52,800 children. In regard to the aim Sir Philip said: "Here in England we have arrived at the conclusion that it is no part of the work of a primary or secondary school to give that sort of training which may be regarded as a substitute for apprenticeship and aims at preparing lads for specific trades or occupations. On the contrary, the education of our ordinary schools should be general, and not technical, and should have for its aim the creation of aptitudes, the discipline and exercise of the faculties and the formation of character. It is because hand-work may be so taught as to be the means of training and developing observation, of stimulating and encouraging accuracy of thought and work, that it has already won a place for itself in the ordinary school curriculum. That our methods are susceptible of improvement in detail we readily admit, and it is the function and province of this association to indicate the direction in which said improvements may be effected; but I think we may be satisfied that the general principles on which our teaching is based are correct, and that any attempt to imitate certain foreign countries, by turning our schools into commercial workshops, and by endeavoring to make elementary education, even in the higher grades, a substitute for trade practice, would lead us into social difficulties, and would deprive manual instruction of its real value as a means of educational discipline."

IN these days of growing interest in commercial education it may be of some interest to examine the program of studies in the commercial department of an English school. The University College School, in London, has made the following announcement of its work in the *Educational Times*:

The minimum age of admission is fifteen. Attainments must be of standard required for passing one of the following examinations (one modern language being included among the subjects):—Cambridge or Oxford Local Senior Pass or Junior Honors: London University Matriculation; C. O. P. First Class. Intermediate L. C. C. scholars will be admitted to the course if they can show a satisfactory knowledge of French or German.

The aim is to prepare (1) for the higher branches of commercial life, (2) for an institution of university rank in the higher branches of industry and commerce. The course is two years in length. At the end of the first year an examination will be held for admission to the second year's course. At the end of the second year's course, the pupils will present themselves for a

leaving examination conducted by the technical board, on the result of which examination certificates will be granted. The examinations will be partly oral.

COURSE OF STUDY

English literature and composition, commercial science, economics, commercial arithmetic, commercial history, commercial geography, bookkeeping, mathematics.

Two of the following languages: French, German, Spanish, Latin.

Optional.—Chemistry, shorthand, typewriting, drawing, higher mathematics.

English.—Selected works of English Literature, *e. g.*, Bacon's Essays, Burke, Arthur Helps. Essay writing, précis writing, practice in speaking, debates on commercial topics.

Mathematics (first year only).—Algebra: progressions, permutations and combinations, logarithms, annuities, and compound interest. Geometry: Euclid III, IV, VI. Trigonometry: elements up to and including solution of triangles, with special reference to the processes of surveying.

Arithmetic (first and second year).—Rapid addition, abridged methods of multiplication and division, rapid decimalization of money; application of arithmetic to percentage, proportion, calculation of averages; interest, discount, commission, calculation of present value, C.I.F.; foreign weights and measures, exchange, banking operations, international stock exchange, transactions, sinking funds, conversion of loans. Frequent practice in mental arithmetic and casting up of profit and loss.

History.—(1) Short sketch of the industrial and commercial history of antiquity. (2) Commercial and industrial history of the middle ages; centers of commerce; division of society in England; Peasants' revolt and economic effects. (3) From the discovery of America up to the invention of the steam engine; special study of the development of England's foreign trade. (4) The industrial revolution.

Geography (first and second year),—Physical geography; elements of geology, especially as regards coal and metals; agricultural, industrial, and commercial geography of the world; British colonies.

Economics (second year only).—Nature, scope, and methods of economic science; production and distribution, labor, capital, division of labor, values; free trade and protection; equilibrium of demand and supply; money; credit; wages; relations of state to labor and trade.

Commercial knowledge (second year only).—The machinery of business. Merchant, trader, etc.: principal, agent, partner; companies, company law, syndicates and trusts; employers' liability; transit by land and water, navigation law; tariffs, banking, bills of exchange and other negotiable instruments; insurance, hypothecation; chambers of commerce and consulates; patents and trade marks; contracts, telegraph codes. To be illustrated by

(*a*) reference to actual reports of commerce and current newspapers, (*b*) visits to docks and large commercial and industrial houses, banks, etc.

Modern Languages.—French and German: Reading of works of travel and industry, economical treatises, descriptive economics; commercial condition of foreign countries taught in the foreign language; commercial correspondence, essays—the foreign language to be used as the vehicle of teaching as far as possible; deciphering of foreign handwriting.

Spanish, Italian: reading, elementary grammar, conversation.

Chemistry; Shorthand (Pitman's or Script); *Drawing:* Freehand, drawing to scale.

AT THE opening of the fortieth session of Dalhousie College, Halifax, Nova Scotia, Mr. J. G. McGregor, Professor of Chemistry, delivered a remarkably able inaugural address on "The Utility of Knowledge-Making as a Means of Liberal Training," from which we quote the following:

The value of experience in the direction of the work of life does not need to be established by argument. It has become proverbial. But the connection of its value as a directing agency with the making of knowledge may need a few words of exposition. That the mental process which enables us to learn by experience in later life is a knowledge-making process—the same as that used by the child in acquiring its mother-tongue, though perhaps more consciously performed—becomes obvious if we consider any particular kind of work in which men engage. The merchant, to take a single case, in order that he may be able to foresee what kinds and qualities of the many articles in which he deals it will be desirable for him to have in stock, must watch the purchases of his customers, and make mental note of their satisfaction or discontent. The transactions are too numerous to be carried in the memory or to admit of written memoranda. If he is to make progress in judging as to what his stock should include, he must put related experiences together, weld the lessons he learns from them into general rules, and make these rules more and more accurate as time goes on. And the same is true of many other questions which he must settle for himself. Unless, in fact, he can generalize his mercantile experience, as a child generalizes its linguistic experience, he must continue to buy and sell with no greater intelligence than he did at the outset of his business career.

> "Till old experience do attain
> To something like prophetic strain,"

as Milton puts it, he can have no complete success.

A similar statement may be made with respect to the physician, the farmer, the investigator, the housewife, the artisan, the politician, the clerk—with respect, in fact, to all classes of workers, whatever the form of work in which they may be engaged. It may be made also, not only in regard to their main work, but in so far as they may in addition be engaged in athletic, literary, artistic, political, social, religious, or any other effort, and whether

that effort take the form of work or play. In short, it is applicable to a greater or smaller extent to at least the great bulk of the various forms of activity of which the lives of most of us are made up. The subject-matter of experience, the material with which we must deal, is different in different cases; but there is one condition of success which is common to them all — the possession of the power of foreseeing; and there is one method of acquiring foresight — the making of knowledge for ourselves from our own experience.

A difficulty with which the sound teaching of science has met, arises from the complex character of its subject-matter. To compare different usages of words, for example, one has but to turn over the leaves of a book; to compare instances of the occurrence of natural phenomena, the phenomena must be watched for or reproduced under varying conditions. Knowledge-making, therefore, especially in its early stages, finds more difficult problems in science than in language; and the young investigator meets with greater hindrances to progress. The early investigators felt this difficulty, and banded themselves together in societies in order to enjoy the suggestions and criticism of their fellows. The science student of course needs the helping hand still more; and the teacher must be able to give the requisite aid in a judicious way. He must be a knowledge-maker himself, must have sufficient experience in the subject he is teaching, and must be largely endowed with tact and common sense. Unfortunately the old curriculum furnished men with practically no experience of science, the new curriculum furnished men with little knowledge-making power, and no curriculum could furnish the tact and common sense. The available teachers have thus in general been incompetent. And in the making of scientific knowledge, a pupil under an incompetent teacher must stick fast.

Competent teachers in classics, on the other hand, have always been more readily obtainable. And — what is of more importance — in the making of linguistic knowledge, a pupil under an incompetent teacher does not stick fast. He has the experience of his childhood to help him, is capable of exercising the knowledge-making power, without the teacher's aid, on the familiar material which language affords, and in his effort to make progress, cannot help exercising it to a greater or smaller extent. Let me draw special attention to this point; for the fact that in the study of language, exercise of the knowledge-making power is not only possible, but in a large measure inevitable, even under an incompetent teacher, gives to language study a great advantage over science study, as a means of discipline in all educational institutions, but especially in those of lower grade, in which, owing to their large number, the difficulty of securing competent teachers is especially great.

The conclusions we have now reached may be summarized thus: (1) Few of the subjects of the old curriculum could be studied without exercise of the knowledge-making power; many of the subjects of the new curriculum can.

(2) The demand for useful information did not affect the old curriculum; it seriously diminished the exercise of the knowledge-making power in the new. (3) Written examinations might stimulate such exercises in the old curriculum; they could not but repress it in the new. (4) Competent teachers could readily be secured for the old curriculum; they have not generally been available for the new. (5) Incompetent teachers could not largely exclude practice in knowledge-making under the old curriculum; they could not fail to exclude it largely under the new. Obviously, therefore, the more intensely modern the curriculum has become, *i. e.*, the more linguistic study has been excluded and science study introduced, the less efficient in general must the curriculum have become, so far as practice in knowledge-making is concerned.

There is one other educational experience, perhaps specially characteristic of our time, to which I should like to refer, viz., the frequency of the success of the self-made man. His success is usually attributed to innate ability, organizing power, push, knowledge of men, and what not. To my mind it is largely due to a well-developed power of learning by experience; and he owes that in great measure to the school of practical life in which he has had his training. This school provides an entirely different curriculum from the one we have been considering. It furnishes its pupils with no outfit of information whatever; but compels them to hunt out for themselves such information as they may require. And instead of devising cunning ways of stopping the putting of that and that together, it compels its pupils, by sending them early into active life, to cultivate that power for themselves. Many of them of course go down; for no helping hand is extended to them, and the method is rough. But many manage to obtain the knowledge they require, learn how to put the that and that of their experience together, and graduate often, as we should say, with high honors, in one or other of the departments of active work. They may not have been brought into contact with much that makes for sweetness and light, and may thus be deficient in literary and general culture; but for all forms of activity that demand the generalizing of experience, their rough school has given them a training which is, in some respects at lease admirable. Can we wonder then that the practical man, who rightly regards ability to tackle the main work of life as the most important component of a complete culture, and who sees daily the comparative helplessness of the products of the modern curriculum, decides to send his son as early as possible to the school of practical life?